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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,292	12/22/2005	Joseph Briaire	NL 030767	3304

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EXAMINER	
NGUYEN, KHAI M	
ART UNIT	PAPER NUMBER
2819	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/562,292	BRIAIRE, JOSEPH	
	Examiner	Art Unit	
	Khai M. Nguyen	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 December 0205* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/22/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. An initiated copy of the information disclosure statement (IDS) submitted on 12/22/2005 is attached herewith.

Specification

3. The application has not been checked to the extent necessary to determine the presence of all possible typographical and grammatical errors. However, Applicant's cooperation is requested in correcting any errors of which he/she may become aware in the application.

4. The specification is objected to because its arrangement – The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

5. Claims 1 and 9 are objected to because, as illustrated in the drawings, the first current source (3) is not connected to the first node (23,26) – the first node should be changed to (23,36). Clarification is required.

6. Claim 7 is objected to because "the output loads" is unclear or lacks antecedent basis. Correction or clarification is required. Thus, this claim is examined as best understood by the examiner.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Curry et al. (US 6,794,924), hereinafter referred to as Curry.

Regarding claim 1, Curry discloses (Figs. 1-4) a digital to analog converter (DAC – col. 3, lines 39-40; and col. 5, lines 35-36) comprising a first current source (main current source 180 of cell 110 of Figs. 1-2) connected to a plurality of common lines (line 130 and power line that supplies or distributes current to 180 – i.e., the arrow line) and to a first node (Actual Iout A & B), wherein said first node forms an output of the digital to analog converter via a respective switch (actual switch pair of Fig. 2 - 130) whose state is controlled in accordance with a first applied digital signal (signals Da & Da-bar) to be converted, the digital to analog converter further comprising a second current source (dummy current source 190 of cell 110 of Figs. 1-2) which is associated with said first current source (180), wherein said second current source (190) is connected to at least one of said common lines (i.e., the arrow line) and to a second node (Dummy Iout A & B) via a respective second switch (dummy switch pair of Fig. 2 - 150) whose state is controlled in accordance with a second applied digital signal (signal Dd & Dd-bar), characterized in that second applied digital signal (signal Dd & Dd-bar) causes said second respective switch (150) to change state (i.e., to steer the current from 190 to one of its outputs) such that influences on at least said one of said common lines caused by said first and second switches (130/150) switching are periodic (based on the signals D or S – Figs. 1-2).

Regarding claim 2, Curry discloses that the DAC of claim 1, wherein the first digital signal (Da/Da-bar) comprises a plurality of components (high & low pulses of digital signal Da/Da-bar), each having a duration substantially equal to one or more clock cycles (since it is synchronized with the clock signal – Fig. 3), and wherein the second signal (Dd/Dd-bar) is derived from the first signal (via a feedback loop – Fig. 3) so that, during data conversion, during any one of clock cycle either the first current source (180) or second current source (190) is switched.

Regarding claim 3, Curry discloses that the current sources 180, 190 of claim 1 are coupled, via the arrows, to a power or current supply/generator that distributes or provides current to the current sources 180 and 190 (Fig. 2).

Regarding claim 4, Curry discloses that the current sources 180, 190 of claim 1 are placed side-by-side or next together (see, each cell 110 of Figs. 1-2).

Regarding claim 5, Curry further discloses that the first digital signal (Da/Da-bar) and the second digital signal (Dd/Dd-bar) supplied to the first and second switches, respectively, in parallel arrangement (Fig. 2).

Regarding claim 6, Curry discloses the DAC of claim 1, wherein said second digital signal (Dd/Dd-bar) is generated by a signal generating means (210 of Figs. 1 and 3) comprising a circuit (latch or flip-flop 240 of Fig. 3) for identifying clock cycles (signal

CK) in said first digital signal (Da/Da-bar) in which, when applied to said first switch (130), a signal component (one transistor of switch 130) causes said first current source (180) to switch, and for generating in response to the identification (of CK), a second digital signal (Da/Da-bar) including a signal component (one transistor of switch 150) which, when applied to said second switch (150), causes said second current source (190) to switch, in those clock cycles (of clock CK) in which no such component is identified in said first digital signal, so that, during conversion (D to A conversion), in any one clock cycle, either said first or said second current source (180/190) is caused to switch.

Regarding claim 7, Curry discloses output loads associated with the first and second nodes are substantially matched because output currents remain constant (abstract and Figs. 1-2).

Regarding claim 8, Curry discloses the DAC of claim 1 further comprising a plurality of first current sources (180) and second current sources (190), wherein each of the first current source 180 is associated with one of the second current sources, and each of the sources (180,190) is provided with a respective switch (130, 150 – as seen in Figs. 1-2).

Regarding claim 9, this claim is directed to a method of operating the DAC of claim 1. Thus, it is rejected for the same reason – see the rejection of claim 1.

Prior Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclose (notes: references cited on PTO-892 Form attached herewith).

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571-272-1809. The examiner can normally be reached on 9:00 - 5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford (Rex) Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyenkhai

April 19, 2007

Khai M. Nguyen
Art Unit: 2819
571-272-1809